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| EXAMINER |
|---|
| ZEC, FILIP |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

NBN-IntelProp@bshg.com

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/560,156 | KONOPA, HELMUT | |
| | Examiner | Art Unit | |
| | Filip Zec | 3744 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *12-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 1/07/2010 have been fully considered but they are not persuasive.

In reference to the applicant's arguments regarding the rejection of claim 12 under 102(b) over Whipple, while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). Also, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham,* 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). In this case, the apparatus of Whipple includes all positively recited structural members of claim 12. Said apparatus of Whipple is further capable of performing the functional recitation of "*... which makes an average circulation power of a fan variable during an activation phase of a evaporator based on at least one air conditioning parameter.*" The Applicant's apparatus claim fails to structurally define over the apparatus of Whipple.

Because claim 12 fails to further limit the instant invention in terms of structure, but rather only recite further functional limitations, the teachings of Whipple, which have been shown to meet all the structural limitations as previously described in this action, are therefore deemed fully capable of performing all the functional requirements as recited in the instant claim 12.

In reference to the applicant's arguments regarding the rejection of claims 14-16 and 19 under 103(a) over Whipple in view of Shima, Shima clearly states that in order "to provide a low temperature storage cabinet the operation of electric fan in the cabinet is controlled based on an air conditioner parameter (difference in pressure between upper and lower compartments of the cabinet, col 1, line 40) to reduce consumption of the electric power without causing any problem discussed above" (col 1, lines 37-44), thus the motivation for combining Whipple and Shima is clearly present. Additionally, Shima is used solely to provide the teachings of an intermittently operatable evaporator fan, thus whether the compressor is simultaneously working with the fan is not pertinent to the claimed matter which was rejected. The saving switch (25, FIG. 2), which triggers the circuit (21, FIG. 2) and the timer (21a, FIG. 2), enables the fan's intermittence for efficiency purpose (col 7, lines 1-4 and col 1, lines 37-44).

In response to applicant's argument that Kelly is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both Whipple and Kelly teach a component of a climate control system, be it an energy-efficient refrigerator control system, as described in Whipple or a fog prevention system for a vehicle. Since the applicant is claiming a no-frost refrigeration device, it is safe to say that both the teachings of Whipple and Kelly are in the same field of endeavor as the Applicant's claimed invention. Also, the applicant is arguing that the process of defogging, as taught by Kelly, is in stark contrast to what is claimed, however, as is well known, defogging is essentially a process of dehumidifying the surface of the

windglass. In this case, Kelly teaches that by increasing the blower speed one is capable of decreasing the humidity (BL offset – blower motor speed, combined with the outside air AI offset; col 4, lines 18-24, 52-56 and 65-67).

In response to applicant's argument that Kelly is not capable of solving the problems as claimed, pages 13-16, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). It is well known in the art, for instance, in the freeze drying branch, that decreasing the humidity by lowering the temperature enables prevention of foodstuffs decay, and thus, the rejections over Whipple in view of Kelly remain.

All rejections remain as previously stated.

Additional claims 33-36 have been rejected under 103(a) over U.S. Patent 6,290,140 to Pesko et al., as explained in detail below.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12-13, 17-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,711,159 to Whipple, III (Whipple).

In regard to claim 12, the FIGURE of Whipple and Modified FIGURE of Whipple, attached, discloses a no-frost refrigeration device (100, FIG. 1 and see col 3, line 49 and col 6,

lines 28-34), comprising a storage compartment (110, FIG. 1 and col 3, line 53); an evaporator (152, FIG. 1 and col 4, line 25) which is alternately activated (col 1, lines 24-28) and deactivated, and located (100, FIG 1) in a chamber separated from a storage compartment; a fan (154, FIG. 1 and col 4, line 35); and a control circuit (165, FIG. 1 and col 5, lines 24 and 42-46) which makes an average circulation power of a fan variable during an activation phase of a evaporator based on at least one air conditioning parameter (temperature; col 5, lines 47-58).

In regard to claim 13, Whipple discloses a no-frost refrigeration device, including a fan that can be switched off (col 5, lines 39-40) temporarily during an activated phase of an evaporator.

In regard to claim 17-18, the FIG. 1 of Whipple discloses a no-frost refrigeration device, including an activation phase of an evaporator and a fan can be set to different non-zero speeds (via 165, and col 5, lines 42-46), (as per claim 17); including a control circuit for controlling the operation of an evaporator and a fan is set to operate a fan at one of a plurality of selectable non-zero speeds when an evaporator is activated (as per claim 18).

In regard to claim 20, the FIGURE of Whipple discloses a no-frost refrigeration device, including said control circuit coupled to an air conditioning sensor (176, FIG. 1 and col 6, lines 19-27) that records the at least one air conditioning parameter and said control circuit regulates the speed of said fan using the at least one air conditioning parameter recorded by said sensor.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 14-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whipple in view of U. S. Patent 5,931,011 to Shima et al. (Shima).

In regard to claim 14, it is noted that Whipple does not specifically disclose a no-frost refrigeration device, including a control circuit controlling the operation of an evaporator and a fan set up to intermittently operate a fan during an activated phase of an evaporator (as per claim 14); a method, including controlling the operation of an evaporator. However, Figs. 2-3 of Shima et al. teach an evaporator (13, and see col. 4, ln. 61-62), an intermittently operating fan (18, and see col. 5, ln. 2, and col. 7, ln. 1-4), which by inherency has a duty cycle, and a control circuit (20A, and see col. 5, ln. 9-10), which intermittently operates a fan during an activated phase of an evaporator.

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Whipple with a control circuit, evaporator and fan as taught by Shima et al. in order to achieve a device and method that would provide a refrigerator with intermittent fan operation based on various operating parameters, therefore allowing a refrigerator to operate more efficiently and therefore more economically.

In regard to claims 15 and 19, it is noted that Whipple does not specifically disclose a no-frost refrigeration device, including a selector switch on which a duty cycle can be set for an intermittent operation of a fan (as per claim 15); including a selector switch on which a speed for operation of a fan can be set (as per claim 19). However, Fig. 2 of Shima et al. teaches a switch (25, and see col. 5, line 17).

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Whipple with a switch as taught by Shima et al. in order to achieve a device capable of setting a duty cycle that would provide a refrigerator that provides the user with the ability to further control fan operation, and therefore allow a refrigerator to operate more efficiently and more economically.

In regard to claim 16, the FIGURE of Whipple discloses a no-frost refrigeration device including a control circuit coupled to an air conditioning sensor (176, and see col. 6, ln. 19-27). It is noted that Whipple does not specifically disclose a no-frost refrigeration device wherein a control circuit regulates a duty cycle as a function of the at least one air conditioning parameter recorded by a sensor. However, Fig. 1 of Shima et al. teaches a fan (18, and see col. 5, ln. 2) which intermittently operates (see col. 7, ln. 1-4) and by inherency has a duty cycle.

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Whipple with a fan which intermittently operates as taught by Shima et al. in order to achieve a device capable of regulating a duty cycle based on an air conditioning parameter, and therefore provide a refrigerator that operates more efficiently and therefore more economically.

6. Claims 21-23 and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whipple in view of U.S. Patent 6,508,408 to Kelly et al. (Kelly).

In regard to claim 21, the FIGURE of Whipple and Modified FIGURE of Whipple, attached, discloses a refrigeration device (100, see col. 6, ln. 28-34) capable of performing a method (160, and see col. 3, ln. 50-51) for operating a refrigeration device (100, see col. 6, ln. 28-34), including a storage compartment (110, and see col. 3, ln. 53); an evaporator (152, and see

col. 4, ln. 2) which is alternately activated (see col. 1, ln. 24-27) and deactivated located (100, and see FIGURE) in a chamber separated from a storage compartment; a fan (154, and see col. 4, ln. 35); a control circuit (165, and see col. 5, ln. 24 and 42-46) which makes an average circulation power of a fan variable during an activation phase of an evaporator and it also teaches consequentially the method for operating said device comprising the steps of selecting a circulating power for said fan as a function of a specific air conditioning parameter (via 165, FIG. 1; col 5, lines 42-46) and operating said fan at said selected circulating power (col 5, lines 42-46), but does not teach that said parameter is an estimation of a moisture value in said storage compartment. Kelly teaches a method for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the air dewpoint temperature is estimated based on a value of relative humidity or moisture (col 1, lines 55-57) and subsequently use said value to offset blower motor speed (col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47). Even though the system of Whipple is used in a refrigerator and Kelly teaches a system used in a vehicle, "under the correct analysis, any need or problem known in the field of endeavor at the time of the invention and addressed by the present application can provide a reason to one having ordinary skill in the art for combining the elements in the manner claimed. " KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007). Thus a reference in a field different from that of applicant's endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering

his or her invention as a whole. In this case, both Whipple and Kelly teach systems which disclose a refrigeration device.

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Whipple, wherein the fan is controlled based on the estimated moisture within the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

In regard to claim 22, Whipple and Kelly disclose a no-frost refrigeration device capable of performing a method as described in the rejection of claim 21, and Whipple includes selecting (via 165 and 175, and see col. 5, ln. 42-46) a circulating power to be lower, the higher an estimated moisture value.

In regard to claim 23, Whipple and Kelly disclose a no-frost refrigeration device capable of performing a method as described in the rejection of claim 21, and Whipple includes a fan that can be switched off (col 5, lines 39-40) temporarily during an activated phase of an evaporator.

In regard to claims 26-27, Whipple and Kelly disclose a no-frost refrigeration device capable of performing a method as described in the rejection of claim 21, and Whipple includes setting (via 165, and see col. 5, ln. 42-46) an activation phase of an evaporator and a fan to different non-zero speeds (as per claim 26); and capable of controlling the operation of an evaporator and a fan and operating a fan at one of a plurality of selectable non-zero speeds when an evaporator is activated (as per claim 27).

In reference to claims 28 and 30, Whipple discloses the no-frost refrigeration device as explained in the rejection of claim 12, but Whipple does not teach that the at least one air

conditioning parameter is a moisture value of one of ambient air and air in the at least one storage compartment. Kelly teaches a method for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the measured relative humidity or moisture (94, FIG. 1; col 1, lines 55-57) is used by the controller (90, FIG. 1) to offset blower motor speed (43, FIG. 1; col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47). It is noted that the air moisture and air humidity are considered to be the equivalent factor.

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Whipple, wherein the fan is controlled based on the measured humidity within the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

In reference to claim 29, Whipple discloses the no-frost refrigeration device as explained in the rejection of claim 12, but Whipple does not teach that the at least one air conditioning parameter is an estimated moisture value of one of ambient air and air in the at least one storage compartment. Kelly teaches a method for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the air dewpoint temperature is estimated based on a value of relative humidity or moisture (col 1, lines 55-57) and subsequently use said value to offset blower motor speed (col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47).

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Whipple, wherein the fan is controlled based on the estimated moisture within the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

In reference to claim 31, Whipple discloses the no-frost refrigeration device as explained in the rejection of claim 12, and Whipple also teaches that the control circuit makes the average circulation power of said fan variable (col 4, lines 35-37) during the activation phase of said evaporator based on the at least one air conditioning parameter (temperature col 5, lines 49-50 and lines 42-46) but does not teach to use a predefined target value of a humidity of air in the at least one storage compartment as basis for controlling the fan. Kelly teaches a method for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the air dewpoint temperature is estimated based on a value of relative humidity or moisture (col 1, lines 55-57) and subsequently use said value to offset blower motor speed (col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47).

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Whipple, wherein the fan is controlled based on the humidity within the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

In reference to claim 32, Whipple and Kelly disclose the method as explained in the rejection of claim 21, but Whipple does not teach that the circulating power for said fan is selected as the function of said estimated moisture value and a predefined target value of a humidity of air in the at least one storage compartment. Kelly teaches a method for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the air dewpoint temperature is estimated based on a value of relative humidity or moisture (col 1, lines 55-57) and subsequently use said value to offset blower motor speed (col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47).

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Whipple, wherein the fan is controlled based on the humidity within the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

7. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whipple in view of Kelly as applied to claim 21 above, and further in view of Shima.

In regard to claim 24, it is noted that Whipple and Kelly do not specifically disclose a no-frost refrigeration device, including a control circuit controlling the operation of an evaporator and a fan set up to intermittently operate a fan during an activated phase of an evaporator (as per claim 14); a method, including controlling the operation of an evaporator and intermittently operating a fan during an activated phase of an evaporator (as per claim 24). However, Figs. 2-3 of Shima et al. teach an evaporator (13, and see col. 4, ln. 61-62), an intermittently operating fan

(18, and see col. 5, ln. 2,and col. 7, ln. 1-4), which by inherency has a duty cycle, and a control circuit (20A, and see col. 5, ln. 9-10), which intermittently operates a fan during an activated phase of an evaporator.

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Whipple and Kelly with a control circuit, evaporator and fan as taught by Shima et al. in order to achieve a device and method that would provide a refrigerator with intermittent fan operation based on various operating parameters, therefore allowing a refrigerator to operate more efficiently and therefore more economically.

In regard to claim 25, Whipple and Kelly disclose a no-frost refrigeration device capable of performing a method, including sensing (176, and see col. 6, ln. 19-27) an air conditioning parameter. It is noted that Whipple and Kelly do not specifically disclose a method for operating a refrigeration device and regulating a duty cycle as a function of a sensed air conditioning parameter. However, Fig. 1 of Shima et al. teaches a fan (18, and see col. 5, ln. 2) which intermittently operates (see col. 7, ln. 1-4) and by inherency has a duty cycle.

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Whipple and Kelly with a fan which intermittently operates as taught by Shima et al. in order to achieve a device capable of regulating a duty cycle based on an air conditioning parameter that would provide a refrigerator that operates more efficiently and therefore more economically.

8. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whipple in view of Kelly as applied to claim 21 above, and further in view of U.S. Patent 6,290,140 to Pesko et a. (Pesko).

In reference to claim 33, Whipple and Kelly disclose the method as explained in the rejection of claim 21, but they do not teach selecting said circulating power to be higher, the lower said estimated moisture value. Pesko teaches an energy management system and method wherein it is determined that more moisture is removed from the air when the fan is operated at a low speed than when it is operated at a high speed (col 12, lines 58-60). Thus, the humidity and cooling of temperature controlled space can be independently traded off by increasing and decreasing the respective fan speeds, respectively, based on the sensed humidity (col 12, lines 65-67 and col 13, lines 1-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Whipple and Kelly, to decrease the power of the fan when the sensed humidity is higher, as taught by Pesko, in order to optimize the work of the fan during the dehumidifying process.

In reference to claim 34, Whipple and Kelly disclose the method as explained in the rejection of claim 21, but they do not teach that the control circuit decreases the circulation power of the fan during the activation phase of the evaporator when the estimated moisture value is greater than a moisture value constant, and increases the circulation power of the fan during the activation phase of the evaporator when the estimated moisture value is less than the moisture value constant. Pesko teaches an energy management system and method wherein it is determined that more moisture is removed from the air when the fan is operated at a low speed than when it is operated at a high speed (col 12, lines 58-60). Thus, the humidity and cooling of temperature controlled space can be independently traded off by increasing and decreasing the

respective fan speeds, respectively, based on the sensed humidity (col 12, lines 65-67 and col 13, lines 1-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Whipple and Kelly, to decrease the power of the fan when the sensed humidity is higher and increase the power of the fan when the sensed humidity is lower, as taught by Pesko, in order to optimize the work of the fan during the dehumidifying process.

9. Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whipple in view of Pesko.

In reference to claim 35, Whipple discloses the refrigeration device as explained in the rejection of claim 12, but does not teach that the control circuit decreases the average circulation power of the fan during the activation phase of the evaporator when the moisture value is greater than a moisture value constant. Pesko teaches an energy management system and method wherein it is determined that more moisture is removed from the air when the fan is operated at a low speed than when it is operated at a high speed (col 12, lines 58-60). Thus, the humidity and cooling of temperature controlled space can be independently traded off by increasing and decreasing the respective fan speeds, respectively, based on the sensed humidity (col 12, lines 65-67 and col 13, lines 1-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Whipple, to decrease the power of the fan when the sensed humidity is higher, as taught by Pesko, in order to optimize the work of the fan during the dehumidifying process.

In reference to claim 36, Whipple discloses the refrigeration device as explained in the rejection of claim 12, but does not teach that the control circuit selectively decreases the average circulation power of the fan during the activation phase of the evaporator when the moisture value is greater than a moisture value constant, and increases the average circulation power of the fan during the activation phase of the evaporator when the moisture value is less than the moisture value constant. Pesko teaches an energy management system and method wherein it is determined that more moisture is removed from the air when the fan is operated at a low speed than when it is operated at a high speed (col 12, lines 58-60). Thus, the humidity and cooling of temperature controlled space can be independently traded off by increasing and decreasing the respective fan speeds, respectively, based on the sensed humidity (col 12, lines 65-67 and col 13, lines 1-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Whipple, to decrease the power of the fan when the sensed humidity is higher and increase the power of the fan when the sensed humidity is lower, as taught by Pesko, in order to optimize the work of the fan during the dehumidifying process.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Filip Zec whose telephone number is 571-270-5846. The examiner can normally be reached on Monday-Friday, from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisors, Frantz Jules or Cheryl Tyler can be reached on 571-272-6681 or 571-272-4834, respectively. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cheryl J. Tyler/
Supervisory Patent Examiner, Art Unit 3744

/F. Z./
Examiner, Art Unit 3744

3/17/2010